What is claimed is:

1. A heterodyne receiver comprising:

a tunable oscillator circuit for outputting a predetermined local oscillation frequency signal to a frequency mixer;

said frequency mixer for mixing an input data signal and said predetermined local oscillation frequency signal and outputting substantially similar mixed signals on at least two separate paths;

a current comparing means for comparing said mixed signals and generating a voltage value indicative of a difference in current within said at least two separate paths;

a gain clipped post amplifier for amplifying said voltage value such that a baseband signal is generated; and

a decision circuit for receiving said baseband signal and producing a resultant logic signal.

2. The heterodyne receiver of claim 1, further comprising a low-pass filter for filtering said baseband signal.

3. The heterodyne receiver of claim 1, wherein said low-pass filter comprises an SMA connector.

4. The heterodyne receiver of claim 1, wherein said tunable oscillator circuit comprises a fast switchable laser.

5. The heterodyne receiver of claim 1, wherein said frequency mixer comprises a 3dB coupler.

6. The heterodyne receiver of claim 1, wherein said current comparing means comprises two photodiodes and a differential amplifier.

7. The heterodyne receiver of claim 1, wherein said gain clipped post amplifier is operated in saturation.

8. The heterodyne receiver of claim 1, wherein said decision circuit produces a logic high output if said baseband signal is higher than a predetermined threshold and produces a logic low output if said baseband signal is lower than a predetermined threshold.

9. The heterodyne receiver of claim 1, further comprising at least one respective delay line and at least one respective attenuator in each of said at least two separate paths for making the signal propagation time and loss in said at least two separate paths substantially equal.

10. The heterodyne receiver of claim 1, wherein said decision circuit comprises a limiting amplifier.

11. An optical switch fabric, comprising:

a plurality of optical transmitters;

a multiplexer for combining the optical channels of said optical transmitters;

a power splitter for splitting said combined optical channels; and

at least one receiver for receiving at least one of said split, combined optical channels, each of said at least one receivers comprising:

a tunable oscillator circuit for outputting a predetermined local oscillation frequency signal to a frequency mixer;

said frequency mixer for mixing said received split, combined optical channels and said predetermined local oscillation frequency signal and outputting substantially similar mixed signals on at least two separate paths;

a current comparing means for receiving said mixed signals via said at least two separate paths and for generating a voltage value indicative of a difference in current within said at least two separate paths;

a gain clipped post amplifier for amplifying said voltage value such that a baseband signal is generated; and

a decision circuit for receiving said baseband signal and producing a resultant logic signal.

12. The optical switch fabric of claim 11, wherein the signals of said plurality of transmitters are delayed replicas of each other, except that two of them are in phase.

13. The optical switch fabric of claim 11, further comprising an amplifier for amplifying said combined optical channels.

14. The optical switch fabric of claim 11, further comprising a polarizer for polarizing said combined optical channels such that all of the optical channels propagate with substantially the same polarizations.

15. The optical switch fabric of claim 11, further comprising a central clock distribution unit and delay lines.

16. A method of channel selection, comprising:

mixing an input data signal and a local oscillation frequency signal to generate substantially similar mixed signals on at least two separate paths;

comparing said mixed signals and generating a voltage value indicative of a difference in current within said at least two separate paths;

amplifying said voltage value such that a baseband signal is generated; and

determining from said baseband signal a resultant logic signal.

17. The method of claim 16, wherein said voltage value is gain clipped by said amplifying.

18. A heterodyne receiver comprising:

means for mixing an input data signal and a local oscillation frequency signal to generate substantially similar mixed signals on at least two separate paths;

means for comparing said mixed signals and generating a voltage value indicative of a difference in current within said at least two separate paths;

means for amplifying said voltage value such that a baseband signal is generated; and

means for determining from said baseband signal a resultant logic signal.